

WHAT IS CLAIMED IS:

1. An apparatus for displaying a three-dimensional image of an object to be displayed, through a superimposing of a plurality of images of said object, which are placed so as to be apart from each other on a line of sight of an observer, comprising:
  - a first display unit having a first screen;
  - a second display unit disposed so as to face said first display unit, said second display unit having a second screen, which is light-transmissible; and
  - a bonding member for connecting said first display unit and said second display unit with each other, said bonding member having a light transmission property and being a bonding agent with which a space between said first display unit and said second display unit is filled.
2. The apparatus as claimed in Claim 1, wherein:
  - said first display unit comprises:
    - a first substrate; and
    - a first luminescent layer formed on said first substrate, said first luminescent layer emitting light so as to provide said first screen; and
  - said second display unit comprises:
    - a second substrate having a light transmission property; and
    - a second luminescent layer formed on said second substrate, said second luminescent layer emitting light so as to provide said second screen.
3. The apparatus as claimed in Claim 2, wherein:
  - said bonding member is disposed between said first display unit and an opposite surface of said second substrate to said second

luminescent layer, to bond said first display unit and said second substrate together.

4. The apparatus as claimed in Claim 3, wherein:

said first substrate has a light transmission property; and

5 said bonding member is disposed between said first display unit and said second display unit to cause an opposite surface of said first substrate to said first luminescent layer and the opposite surface of said first substrate to said first luminescent layer to bond together.

5. The apparatus as claimed in Claim 2, wherein:

10 said bonding member has a same refractive index as that of at least one of said first substrate and said second substrate.

6. The apparatus as claimed in Claim 2, wherein:

said bonding agent is an optical adhesive.

7. An apparatus for displaying a three-dimensional image,  
15 comprising:

a first display unit comprising a first substrate and a first luminescent layer formed on said first substrate to emit light for displaying a first image;

20 a second display unit comprising a second substrate, which is disposed to face said first substrate and has a light transmission property, and a second luminescent layer formed on said second substrate to emit light for displaying a second image to be superimposed on said first image,

25 wherein said first luminescent layer and said second luminescent layer are placed so as to be apart from each other on a line of sight of an observer, said first display unit being joined to an opposite surface of said second substrate to said second luminescent

layer.

8. The apparatus as claimed in Claim 7, wherein:

said first substrate has a light transmission property; and

said opposite surface of said second substrate to said second

5 luminescent layer is joined to an opposite surface of said first substrate to said first luminescent layer.

9. The apparatus as claimed in Claim 2, wherein:

said first substrate has a larger refractive index than that of said second substrate.

10 10. The apparatus as claimed in Claim 2, wherein:

at least one of said first substrate and said second substrate contains at least one of glass and plastic.

11. The apparatus as claimed in Claim 1, wherein:

said first display unit and said second display unit are disposed

15 on the line of sight of said observer so that pixels of the first display unit correspond to pixels of said second display unit, respectively.

12. The apparatus as claimed in Claim 1, wherein:

said second display unit comprises an organic electroluminescence display device.

20 13. The apparatus as claimed in Claim 12, wherein:

said second substrate comprises a polymer film.